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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,111	05/24/2001	Raji Lakshmi Akella	AUS9-2001-0085-US1	1465

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Joseph T. Van Leeuwen  
P.O. Box 81641  
Austin, TX 78708-1641

EXAMINER

TANG, KENNETH

ART UNIT PAPER NUMBER

2127

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 09/864,111	<b>Applicant(s)</b> AKELLA ET AL.	
	<b>Examiner</b> Kenneth Tang	<b>Art Unit</b> 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/24/01</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____<br>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)<br>6) <input type="checkbox"/> Other: _____. |
|---|---|

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### **DETAILED ACTION**

1. Claims 1-21 are presented for examination.

#### ***Claim Objections***

2. Claims 4, 11, and 18 are objected to because of the following grammatical informalities:

In line 3, "an" should be replaced to "a". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8-14, 16, and 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

- a. The following claim language is not clearly defined:

- i. In claims 8, the term "a nonvolatile storage accessible by the processors" in line 4 is indefinite because it is not made explicitly clear in the claim language whether this storage is the same as "a memory accessible by the processors" in line 3 or if it is another (newly introduced) memory accessible by the processors.
- ii. Claims 16, 18-21 are indefinite because it is not made explicitly clear in the claim language whether these claims depend on claim 15 or 8 (i.e. claim 8 is an information handling system but all these claims are computer program product claims).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**4. Claims 1-4, 6-11, 13-18, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bamford et al. (hereinafter Bamford) (US 5,870,758) in view of Cantrell et al. (hereinafter Cantrell) (US 6,651,126 B1).**

5. As to claim 1, Bamford teaches a method of creating snapshots of a data record, said method comprising:

determining one or more changes to the data record (*col. 4, lines 16-17*);

comparing the changes to one or more rules (*col. 7, lines 43-55, col. 18, lines 42-47*); and

Bamford teaches copying the changes (creating snapshots) of one or more data fields (*col. 3, lines 60-65, col. 7, lines 43-55, and Fig. 3*) but fails to explicitly teach copying one or more fields from the data record to a snapshot record in response to the comparison. However, Cantrell teaches snapshots being created and updated based on rules/conditions by the Snapshot enable block (*col. 4, lines 65-67 through col. 5, lines 1-6, and col. 6, lines 17-33*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of copying the changes (creating snapshots) of one or more data fields from the data

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record to a snapshot record in response to the comparison because the rules/conditions provide the control for when the snapshots should be created.

6. As to claim 2, Bamford teaches writing transaction data corresponding to the copying to a transaction log file, wherein the transaction log file, wherein the transaction data includes an address corresponding to the snapshot record (*col. 9, lines 29-40*).

7. As to claim 3, Bamford teaches the method further comprising:  
retrieving one or more transaction records stored in the transaction log file and selecting a related snapshot record corresponding each of the retrieved transaction log records (*col. 9, lines 29-40*).

8. As to claim 4, Bamford teaches including a snapshot pointer in the data record that includes an first address corresponding to the snapshot record and including a data record pointer in the snapshot record that includes a second address corresponding to the data record (*col. 9, lines 29-41*).

9. As to claim 6, Bamford teaches retrieving one or more snapshot records corresponding to the data record, identifying one of the retrieved snapshot records as rollback record, and creating a new data record by overlaying the data record with the rollback record (*col. 3, lines 1-17, col. 12, lines 1-29*).

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10. As to claim 7, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Bamford teaches having data areas or memory for the rules and snapshot fields (*col. 5, lines 5-21, and Fig. 1*).

11. As to claim 8, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Bamford teaches an information handling system comprising one or more processors, a memory accessible by the processors, a nonvolatile storage accessible by the processors, and one or more data records stored on the nonvolatile storage (*col. 5, lines 5-21, and Fig. 1*).

12. As to claim 9, it is rejected for the same reasons as stated in the rejection of claim 2.

13. As to claim 10, it is rejected for the same reasons as stated in the rejection of claim 3.

14. As to claim 11, it is rejected for the same reasons as stated in the rejection of claim 4.

15. As to claim 13, it is rejected for the same reasons as stated in the rejection of claim 6.

16. As to claim 14, it is rejected for the same reasons as stated in the rejection of claim 7.

17. As to claim 15, it is rejected for the same reasons as stated in the rejection of claim 1.

18. As to claim 16, it is rejected for the same reasons as stated in the rejection of claim 2.

19. As to claim 17, it is rejected for the same reasons as stated in the rejection of claim 3.

20. As to claim 18, it is rejected for the same reasons as stated in the rejection of claim 4.

21. As to claim 20, it is rejected for the same reasons as stated in the rejection of claim 6.

22. As to claim 21, it is rejected for the same reasons as stated in the rejection of claim 7.

23. **Claims 5, 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bamford et al. (hereinafter Bamford) (US 5,870,758) in view of Cantrell et al. (hereinafter Cantrell) (US 6,651,126 B1), and further in view of Sarandrea et al. (hereinafter Sarandrea) (US 4,748,573).**

24. As to claim 5, Bamford in view of Cantrell fails to explicitly teach retrieving one or more snapshot records corresponding to the data record, analyzing the retrieved snapshot records, and displaying a resulting analysis. However, Sarandrea teaches retrieving snapshot records of data, analyzing them, and then displaying the analysis on a monitor or printer (*col. 16, lines 66-68 through col. 17, lines 1-7, and col. 18, lines 10-26*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of retrieving one or more snapshot records corresponding to the data record, analyzing the retrieved snapshot



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records, and displaying a resulting analysis because this allows for the user to diagnose and learn information about the data records. In response to the displayed analysis, action can be taken as a response to the analyzed data.

25. As to claim 12, it is rejected for the same reasons as stated in the rejection of claim 5.

26. As to claim 19, it is rejected for the same reasons as stated in the rejection of claim 5.

### ***Conclusion***

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,192,377 B1 and US 5,440,735.


28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 8:30AM - 7:00PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt  
6/21/04



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